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10/067,758	02/08/2002	Chun-Geun Choi	P54562RE	8601

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EXAMINER	
LUU, MATTHEW	
ART UNIT	**PAPER NUMBER**
2676	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/067,758	Applicant(s) CHOI, CHUN-GEUN	
	Examiner LUU MATTHEW	Art Unit 2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-8, 15-31 and 33-80* is/are allowed.

6)☒ Claim(s) *9-14 and 32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-14 and 32, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki (5,619,229).

Regarding claim 9, Kumaki discloses (Figs. 1, 4, and 5) a method for color display adjustment, comprising:

selecting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

inputting a user selected value (Fig. 1, in the color temperature adjusting unit 5, a knob is handled to provide a color temperature by an operator) (column 3, lines 43-45); and determining color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Regarding claim 10, Kumaki discloses (Fig. 6) a digital to analog (DAC) converter for converting the color gain and cut-off values of the amplifier (OP1) (column 8, lines 6-13 and lines 50-53). It is well known in the art that the operational amplifier (OP) has gain and cut-off values.

Regarding claim 11, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values, wherein the minimum value and the maximum value of the knob of the knob is the initial color gain and cut-off values.

Regarding claim 12, Kumaki discloses (Figs. 1, 4, and 5) a method for color display adjustment, comprising:

selecting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

inputting a user selected value (Fig. 1, in the color temperature adjusting unit 5, a knob is handled to provide a color temperature by an operator) (column 3, lines 43-45); and determining color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Regarding claim 13, Kumaki discloses (Figs. 1, 4, and 5) a method for color display adjustment, comprising:

receiving a user selected value (Fig. 1, in the color temperature adjusting unit 5; a knob is handled to provide a color temperature by an operator) (column 3, lines 43-45);

establishing a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

and calculating color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Regarding claim 14, Kumaki discloses (Fig. 6) a digital to analog (DAC) converter for converting the color gain and cut-off values of the amplifier (OP1) (column 8, lines 6-13 and lines 50-53). It is well known in the art that the operational amplifier (OP) has gain and cut-off values.

Regarding claim 32, Kumaki discloses (Figs. 1, 4, and 5) a method, comprising:

setting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

determining color gain and cut-off values of a plurality of color data signals R, G, B, being a distinct spectral component according to the set temperature range (column 3, line 43 to column 4, line 20);

entering a temperature (Fig. 4);

reading gains and cutoff values of the first, second, and third color data signals (R, G, B) corresponding to the temperature range (column 3, line 43 to column 4, line 20).

The only difference between the disclosure of Kumaki and the claimed invention is that the claim further requires determining color gain and cut-off data according to the maximum and minimum color temperatures.

However, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values.

Allowable Subject Matter

Claims 1-8, 15-31, 33-80 are allowed.

Response to Arguments

Applicant's arguments filed April 25, 2005 have been fully considered but they are not persuasive.

Regarding claim 9, the Applicant argues that the Kumaki does not teach "determining color gain and cut-off data according to the maximum and minimum color temperature".

Kumaki clearly discloses (Fig. 1) the color gain and cut-off data is proportional relative to the color temperature adjusting unit (5). For example, the color temperature adjusting unit (5) provides color temperature coefficients Kr, Kg and Kb the gain control circuit (4) for respective primary color signals R, G and B. The gain control signals (A.(Kr.Vcont), A.Kg.Vcont, and A.Kb.Vcont) are supplied to the linear amplifiers (1R, 1G and 1B), respectively. See column 3, lines 46-56.

Kumaki further discloses the cut-off levels of the cathode ray tube are also relative to the color temperature coefficients Kr, Kg and Kb. See column 3, line 65 to column 4, lines 9. Fig. 2A also shows exampled relations of cut-off levels.

Therefore, based on the above teaching, the color gains of the amplifiers (1R, 1G and 1B) and cut-off levels are determined by the input color temperature coefficients Kr, Kg and Kb.

Thus, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since

the gain and cut-off data change proportionally to the input color temperature values. See column 5, lines 29-59; and column 7, lines 11-26.

Regarding claim 10, Kumaki discloses (Fig. 6) a digital to analog (DAC) converter for converting the color gain and cut-off values of the amplifier (OP1) (column 8, lines 6-13 and lines 50-53). It is well known in the art that the operational amplifier (OP) has gain and cut-off values. Furthermore, it is well known in the art that the function of a digital to analog converter is to converting the digital signals to analog signals. Furthermore, it is conventional in the art that digital/analog signal are interchangeably used in a display device.

Regarding claim 11, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values, wherein the minimum value and the maximum value of the knob of the knob is the initial color gain and cut-off values.

Furthermore, Kumaki clearly discloses (Fig. 1) the color gain and cut-off data is proportional relative to the color temperature adjusting unit (5). For example, the color temperature adjusting unit (5) provides color temperature coefficients Kr, Kg and Kb the gain control circuit (4) for respective primary color signals R, G and B. The gain control signals (A.(Kr.Vcont), A.Kg.Vcont, and A.Kb.Vcont) are supplied to the linear amplifiers (1R, 1G and 1B), respectively. See column 3, lines 46-56.

Kumaki further discloses the cut-off levels of the cathode ray tube are also relative to the color temperature coefficients Kr, Kg and Kb. See column 3, line 65 to column 4, lines 9. Fig. 2A also shows exampled relations of cut-off levels.

Therefore, based on the above teaching, the color gains of the amplifiers (1R, 1G and 1B) and cut-off levels are determined by the input color temperature coefficients Kr, Kg and Kb.

Thus, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values. See column 5, lines 29-59; and column 7, lines 11-26.

Regarding claim 12, the Applicant argues that "Kumaki fails to teach or suggest inputting the selected value with the selected range". The examiner respectfully traverses. The user can adjust the knob of the color temperature adjusting unit (5) to a minimum value or zero value or to a highest value or maximum value. The maximum value and the minimum values define the temperature range.

Regarding claim 13, Kumaki clearly discloses establishing a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40, wherein the minimum value is zero and the maximum value is the highest value);

and calculating color gain and cut-off data according to the user selected value (column 3, line 43 to column 4, line 20).

Furthermore, Kumaki clearly discloses (Fig. 1) the color gain and cut-off data is proportional relative to the color temperature adjusting unit (5). For example, the color temperature adjusting unit (5) provides color temperature coefficients Kr, Kg and Kb the gain control circuit (4) for respective primary color signals R, G and B. The gain control signals (A.(Kr.Vcont), A.Kg.Vcont, and A.Kb.Vcont) are supplied to the linear amplifiers (1R, 1G and 1B), respectively. See column 3, lines 46-56.

Kumaki further discloses the cut-off levels of the cathode ray tube are also relative to the color temperature coefficients Kr, Kg and Kb. See column 3, line 65 to column 4, lines 9. Fig. 2A also shows exampled relations of cut-off levels.

Therefore, based on the above teaching, the color gains of the amplifiers (1R, 1G and 1B) and cut-off levels are determined by the input color temperature coefficients Kr, Kg and Kb.

Thus, since Kumaki mentions that a knob is handled to provide a color temperature by an operator (column 3, lines 43-45), it is obvious to a person of ordinary skill in the art to recognize that the operator can turn the knob to minimum or zero value or to the highest or maximum value of the knob to obtain the gain and cut-off data since the gain and cut-off data change proportionally to the input color temperature values. See column 5, lines 29-59; and column 7, lines 11-26.

Regarding claim 32, Kumaki discloses setting a range of temperature (Fig. 4) according to maximum and minimum color temperature values (column 6, lines 27-40,

wherein the minimum value is zero and the maximum value is the highest value). Therefore, the maximum and the minimum is a predetermined range.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (571) 272-7663. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BELLA MATTHEW can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Luu

MATTHEW LUU
PRIMARY EXAMINER